**VIA MESSENGER**

April 12, 1996



Office of the Secretary
Federal Communications Commission
Washington, D.C. 20554

Re: Comment on CC Docket 96-45 In the Matter of Federal-State Board on Universal Service

Dear Mr. Chairman:

The American Hospital Association, the Association of Academic Health Centers, the Association of American Medical Colleges, and the National Rural Health Association are writing on behalf of our members, including hospitals, medical and other health profession schools, faculty societies, health systems, networks and other providers of care to comment on the Notice of Proposed Rulemaking and Order pursuant to Section 254 of the Telecommunications Act of 1996 regarding universal services support mechanisms and implementation.

We continue to be highly supportive of efforts to use new communications tools to expand access to needed health services in both underserved rural and inner city areas. There is growing awareness that telecommunications technologies are important to the organization, delivery, and management of care; and the learning and teaching of health care information. We are especially pleased that the telecommunications act established an expanded universal services fund to help achieve the public sector goals of better education and health care delivery in rural areas.

We are optimistic that the ability of rural health care providers to obtain advanced communications will be greatly enhanced as a result of enactment and implementation of the provisions of the act.

**Telecommunications In a Changing Health Care Environment**

In general, we view emerging telecommunications technologies as important tools which can be used to help restructure the nation's delivery system, including a variety of arrangements such as "community care networks." These networks can be defined as groups of local health providers,

social service agencies, community organizations, and others who work together to provide a seamless system of care for consumers. Many of the national goals of a reformed health care environment -- improved quality, access, and cost effectiveness -- can at least in part be addressed through the use of telemedicine and related efforts.

Health care oriented applications of telecommunications are being considered increasingly for the provision of health services along a continuum of care, and across a range of settings:

- Preventive health -- In April, 1995 the U.S. Public Health Service sponsored a major conference of more than 100 key public health officials and organizations to lay out a comprehensive strategy for applying National Information Infrastructure developments to population-based health initiatives. The conference identified a range of opportunities and barriers facing the widescale implementation of technologies.

- Subacute care -- Both the Veteran's Health Administration and Department of Defense are teaming with private sector health care organizations in pioneering efforts to perform various screening procedures to reduce the need for more intensive service including tele-ophthalmology for early notification of diabetic retinopathy, tele-mammography, remote pacemaker monitoring and others.

- Acute care -- There are more that 100 "hub and spoke" video teleconferencing programs and many more tele-radiology efforts at some stage of development and implementation at hospitals and clinics throughout the United States. Video teleconferencing is being used increasingly to help provide a full range of medical services including consultations with regard to most medical services including cardiology dermatology, obstetrics, pathology, pediatrics, psychiatry, internal medicine, and surgery.

- Post-acute care -- Fully integrated health care delivery systems and managed care organizations increasingly view their responsibilities with respect to "total patient care," including aftercare services in a number of different settings. Allina Health Systems of Minnesota, Mid-Peninsula Home Health Care in California, University of Kansas Medical Center, and the Medical College of Georgia in partnership with the Department of Defense, have all begun to work extensively towards the provision of home health services using off-the-shelf and emerging telecommunications modalities.

**Rural Health Care Institutions Face Problems Which Could be Addressed Through Telecommunications**

Even without the added initial cost of telecommunications development and recurring operational requirements, many small or rural hospitals already face a daunting set of challenges in their attempt to provide continuous, quality care to their patients. These include: a disproportionate share of poor, uninsured, elderly and chronically ill; widely scattered populations; high unemployment/underemployment; underserved communities and unmet needs, especially primary care; difficulty recruiting and retaining physicians and other health practitioners; and very large Medicare and Medicaid populations.

There is an increasing body of evidence that many of these challenges faced by rural institutions may be addressed at least in part by applying new telecommunications tools. Elimination of time and space considerations can help reduce the overall isolation of many rural communities, enabling them to receive first rate clinical, teaching and training, and administrative services which are otherwise inaccessible. Telemedicine promises to extend the reach of individual specialists and specialty services in a more economical manner into areas of need, permitting the range of health services required by communities on an ongoing basis. Extension of teaching and training programs into rural areas through linkages to both academic health centers and secondary rural health centers can help strengthen rural delivery systems and the communities they serve.

Furthermore, health care providers in the inner city face similar challenges in delivering health care services to their communities and could benefit from greater availability of telemedicine services.

It is likely that these objectives will only be realized to the extent that telecommunications line charges can be significantly reduced and, at least, brought in line with comparable charges in other settings.

**The Importance of Rate Structures to Telemedicine**

Several high level working groups of public and private sector participants have recently concluded that problems related to rate structures faced by most telemedicine networks constitute one of the biggest obstacles to widespread implementation and uniform diffusion of telemedicine throughout the nation.

- Tri-Valley Health System of Cambridge, Nebraska was forced to discontinue its telemedicine program with the University of Nebraska Medical Center, located 3.5 hours away. Although they had hopes that access to new telecommunications and telemedicine technologies would reduce their costs and enhance the services they deliver to their community, as a result of high costs for telecommunications service they ultimately couldn't finance the program long enough to find out.

- The High Plains Rural Health Network, with headquarters in Fort Morgan, Colorado, represents 13 rural health institutions and 6 urban medical centers. One in-state point-to-point telemedicine connection in their network costs $3,934 per month. Although the connection has yielded noticeable benefits, the recurrent monthly costs for service will prohibit them from continuing to operate after their federal Office of Rural Health grant money is exhausted.

- During a statement on the floor of the U.S. Senate, Senator Jay Rockefeller related the instance of a small rural hospital in West Virginia that, when told the cost would be $4,300 per month to be linked with a major, larger hospital in the state for administrative and quality assurance support, decided they could not afford the cost, though they were in need of the service.

The "Airlie House" working conference on telemedicine policy for the National Information Infrastructure (NII), sponsored by the Administration's Health Information and Applications Working Group of the Information Infrastructure Task Force Committee on Applications and Technology and supported by the Congressional Steering Committee on Telemedicine and Health Informatics, concluded in its report of August of 1994 that some of the architecture and infrastructure costs of telemedicine implementation may need to be defrayed through direct assistance or cost sharing, especially in rural and underserved areas of the nation.

The cost of capital intensive infrastructure development aside, it is increasingly difficult in many rural areas to even support useful applications requiring low bandwidth because of the recurrent cost of usage charges. Discounted rates will be crucial to rural health care institutions and health care practitioners who are otherwise unable to afford the level of bandwidth necessary to send and receive data intensive radiographic, pathology and other still and motion images which are typically associated with the practice of telemedicine.

The proceedings of the follow-on conference to Airlie "Telemedicine and The National Information Infrastructure", in Augusta in May, 1995 reported that disparities in rate structure at a local and intrastate level based on local telephone service area boundaries has resulted in high transmission charges, often in rural areas least able to afford them. It was noted that sometimes the cost of transmission within a local service area is greater than that for transmission from one service area to another, and that the problem is compounded because local telephone rates are regulated by the public utility commission in each state.

## SPECIFIC COMMENTS

While several states have taken an active role in developing telecommunications services on behalf of citizens within their political boundaries, there remains a need to ensure regional access to health information that is not restricted by high interexchange or intra-LATA (Local Access Transport Area) telecommunications service. This is a role for the Federal Government and a

responsibility of the Federal Communications Commission (FCC). Essential services must be provided to rural health practitioners regardless of artificial political and population-based boundaries and universal service support must be administered accordingly.

1. Defining Rural Areas

In determining the definition of rural areas, and the essential services they require, we believe that the FCC should select the broadest definition possible to provide the opportunity of telemedicine as a tool for as many providers as possible. The FCC should also consider the special circumstances of frontier areas where population is less than 6 persons per square mile. These areas are particularly isolated and, as a result, their residents are especially vulnerable in the event of a medical emergency. Further consideration might also be given to income and other economic barriers to telemedicine within rural areas.

Further, expanded definitions of what is covered under universal service provisions should include services for such public sector goals as indigent care to uninsured and under-insured individuals, emergency care and disaster assistance, and care for Medicare and Medicaid beneficiaries.

2. Networks of Urban and Rural Health Care Providers

Beyond the definition of "rural", the FCC should also consider that an advantage afforded by health care telecommunications networks is the dynamic and open collegial exchange of information between practitioners in and among rural settings, and between rural areas and their urban counterparts.

Many existing telemedicine programs include the regular exchange of information among academic health centers; federal facilities; other tertiary care centers in urban areas; and rural hospitals or clinics.

The importance of active support and involvement of academic health centers as an integral part of these networks cannot be overstated. In addition, the changing role and nature of academic medicine means that more teaching institutions are reaching out to form professional and economic relationships with their rural counterparts. The FCC should study and consider rates in non-rural areas as well.

Most of the major telemedicine programs in the nation have been led by major teaching institutions. Examples include projects based at the University of Arizona, University of Arkansas, Medical College of Georgia, Indiana University, University of Kansas, LSU Medical Center, University of Missouri, University of Nebraska Medical Center, University of Nevada, University of North Carolina, University of South Carolina School of Medicine, Oregon Health Sciences University, Saint Francis College, Saint Louis University, Texas Tech University, University of Virginia Medical Center, University of Washington School of Medicine, and West Virginia University. Many of today's technological advances have taken place as a result of the research, development, and implementation efforts of these major centers.

3. Viewing Services Broadly to Accommodate Modes of Communication

The FCC should view the need for potential healthcare applications in rural areas broadly to be inclusive of the entire spectrum of modes of telecommunications, not just traditional services such as Plain Old Telephone Service.

Rural health care resources including practitioners and services tend to be fewer in numbers than their urban counterparts. In many cases, practitioners and their patients have the additional burden of longer travel times to needed services. Getting to an isolated clinic can take the better part of a day. During the drive time, clinicians are without access to traditional wire line telephone services which compounds their inability to respond to other health needs within their service area. The need exists, therefore, for the FCC to include provision for reasonable cost access to information via wireless modes of communications, including cellular and mobile satellite services. Since cellular is charged by incoming call, there is a need to provide for discounts to "incoming services" as well as "outgoing services."

From a health perspective, care must also be taken when defining "paths" of access to information. Future health care delivery systems will certainly be different from the past. For example, Universal Service should be defined based on access by individuals, not solely by institutions. Increasingly, individuals, citizens of rural communities, will be accessing health information from a variety of providers and through a number of modalities and services.

**Conclusion**

The FCC should, wherever possible, support private sector incentives to develop the critical mass of infrastructure needed to support telemedicine in individual communities. Health care organizations working cooperatively with local telecommunications carriers can help ensure that investment is made locally with synergistic benefit for other applications including those of schools, libraries, agriculture and economic development.

If fees equal to the difference of the cost between comparable rates charged in urban areas are reimbursed to rural telecommunications carriers through provisions of the universal service support, it would be expected that the symbiotic relationships between the rural health practitioners and the rural telecommunications carriers would be more likely to result in the capital investment, on the part of rural telecommunications carriers, in investment in the construction of new services to rural users than would be the case if universal service support were to be divvied more widely to health institutions to spend as they wish.

Respectfully submitted by:

American Hospital Association
Association of American Medical Colleges
Association of Academic Health Centers
National Rural Health Association